Functional Status of Elderly People in Rural Community of Bangladesh

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Abstract: *Proportion of elderly people is gradually increasing in Bangladesh. Higher risk of health problems declines the functional status among elderly people**.** The study aim was to assess the functional status of elderly people in rural community of Bangladesh. This was a descriptive study conducted from July 2018 to June 2019 among elderly people in one rural community of Mymensingh. A total of 85 elderly people aged 60 years old were participated in this study. A previously validated 23 item of SF-36 questionnaire was used to measure the variables. Descriptive statistics such as frequencies, percentages, mean, and standard deviation was used to describe the sample characteristics and Inferential Statistics such as t-test, ANOVA, correlation statistics was used to test the relationship between the variables. Finding of the study shows that the mean functional status of the elderly people was calculated as 2.56 (SD=.91) out of 5 points. It means that the elderly people's functional status was at moderate level. In bivariate analysis, it has been showed that age (p= .001), gender (p=.006), .religion (p=.000), education (p=.000), and occupation (p=.036) were statistically significantly correlated with functional status. Results also revealed that exercise (p=.028), regular diet intake (p=.007) and non-communicable disease (p=.001) were statistically significantly correlated with functional status. Overall functional status of the elderly people was moderate level in Bangladesh. Participant's age, gender, religion, education and occupation, exercise, regular diet intake and non-communicable disease were statistically significantly correlated with the elderly peoples' functional status. Significant variables found in the results could be compromised through the development of health promotion program for elderly people in the rural community. Lifestyle modification program can be conducted to promote functional status of the elderly. Exercise and walking is also important to enhance their functional status.*

Keywords: *Functional Status, Rural Community, Elderly People.*

I. Introduction

Elderly process is a normal phenomenon of human being and the proportion of elderly people is increasing gradually and substantially day by day across the globe (Zin et al., 2015; United Nation [UN], 2017). Higher risk of health problems declines the functional status among elderly people (Singh, Gupta, Jan, Shora & Raina, 2017). In Bangladesh, the proportion of elderly people was estimated as 7.3% in 2017 and it will be increased up to 22 % in 2050 (UN, 2017). However the worldwide elderly people were estimated as 962 million in 2017 and it would be more than triple by 2100 (World Health Organization [WHO], 2017). Elderly problems affect approximately 7% of the world's population. Elderly people face several types of health problems, such as hearing loss, cataracts, refractive errors, back and neck pain, osteoarthritis, chronic obstructive pulmonary disease, diabetes, depression and dementia, frailty, urinary incontinence, falls, delirium, pressure ulcer, mental or neurological disorders (WHO, 2018). The functional status of elderly is decreasing day by day. The study revealed that 60%'at the age of 60-65 years and above were functionally independent (Mahmud & Rahman, Mandal, 2014) and around 44% elderly people who were above 70 totally financially dependent (Nirmala. 2015).

The significance of this study implies the equal value to all parts of human race from its inception when a man is borne infant but dies old if he lives up to the expectation of his life. A man's life is passed through some predestined stages of life namely: infant, childhood, adolescent, youth and old age. Elderly is an inevitable socialization process. Now in the world of modern it has become a social problem as with the change of society due to industrial revolution leading to capitalist social formation. It is considered to be one of the social problems as the elderly feel solitary due to multifarious reasons, one of which is disengagement. So, now in today's world, that as a social problem has got momentum and come into focus as

a field of study in social sciences. And Bangladesh is one of the developing countries with approximately 80% population living rural areas, some of them are inflicted with absolute poverty, where kinship ties are very strong, social relations are based on collective interactions. But the increasing rate of urbanization in Bangladesh has given different out looks and cultural values with regard towards their lives causing break in traditional family system, e.g., joint family has been broken down due to urbanization and industrialization giving birth to nuclear family. Moreover urban life is bound up with individual and formal relations condemning elderly people to isolation and unlimited leisure time. Furthermore, due to innovation of modern technology and improvement in medical sciences death rates are controlled in many countries and Bangladesh as well (Hossain, Akhtar, & Uddin, 2006).

The level of functional dependency of elderly is increasing day by day. Prior study in Bangladesh revealed that 58% of the elderly people in the age group 60-65 years were independent and 70% of the elderly people belonging to age group >70 were totally dependent. However, it has been evident that percentage of independency decreases with the increase of age. It was also found that respondents 'at the age of 65 years and above were functionally dependent (Mahmud, Rahman, & Mandal, 2014). However in India, it has estimated that the elderly people with more than 70 years had inability to perform daily living activities and instrumental activities was 5.5% & 21.8% diagnoses, respectively (Sharma, Parashar, & Mazta,2014).

Functional status is an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is important to investigate the lives of elderly peoples and the problems that they face. It is hoped that, armed with this knowledge, policy makers and medical professionals will be able to develop strategies to slow down the onset of disability and ensure a good quality of life for elderly peoples (Uddin,2017)

This paper attempts to examine the elderly problems in theoretical perspectives with special emphasis on elderly needs highlighting the limitations of the services in the context of Bangladesh (Mahmud, Rahman & Mandal, 2014). As our country is growing socio-cultural and economic, and the social safety net programmers are initiated and emphasized to save and protect the right of all class of people irrespective of color, race, religion, age and according to the constitution all people are equal (Constitution of Bangladesh). The researcher's intention was to develop health promotion guidelines to promote elderly people's health status. There is a dearth of study related to identifying the functional status of elderly people in Bangladesh. Therefore, it is necessary to conduct the study on functional status of elderly people at rural areas of one district in Bangladesh.

General Objective:
To assess the functional status of elderly people in rural community of Bangladesh.
Specific Objectives:
1) To describe the socio-demographic characteristic and health behaviors of elderly people.
2) To assess the functional status of elderly people.
3) To examine the relationship between socio-demographic characteristics, health behaviors and functional status of elderly people.

II. Methodology

This chapter consists of the study design, study participants, instruments, data collection procedure and data analysis procedure.

Study Design: A descriptive exploratory study design was used to assess the functional status of elderly people of rural areas in Bangladesh.

Study Participants: The sample of this study consisted of elderly people who were living in Mymensingh. Dapunia Union number 10 of Mymensingh was selected as setting of the study. Dapunia Union comprises 10 villages. About 40,000 people are living in the Union. Each of the village consists of 4,000 people. Among 10 villages, two villages were selected for conducting the research. Among 8,000 people, 85 elderly people were selected to collect the data. The participants were recruited by convenient sampling technique. The minimum sample size were 64 and the estimated sample size was 85 with 20% attrition rate by using G-power analysis with an accepted minimum level of significance of $\alpha < 0.05$, an excepted test power of 0.80 (1-β), and a medium effect size of 0.30 (γ), as the medium effect size commonly used in nursing studies. The elderly people who met the following inclusion criteria were included in the study.

Age 60 years and above.
All elderly people who were living in Mymensingh.
Conscious, mentally alert and able to co-operate in this study.
These who were willing to participate in this study.

Instrument: A total of 43-item questionnaire was used to collect the data from elderly people was developed by the researcher based on literature review. The questionnaire was divided into three parts which are detailed bellow:

1st Part: This part is an 8-item *Socio-demographic Questionnaire.*
2nd Part: The second part is designed to assess the health behavior of the elderly people. A 9-item *Health Behaviors related Questionnaire* was used to collect the data which was developed by the researchers through literature review. Internal consistency and reliability of the questionnaire in the current study was yielded at the Cronbach's alpha value of 0.72.
3rd Part: A previously validated 23-item Functional status related questionnaire extracted from SF-36 (short form-36) which was developed by Ware and Sherburne in 1992 was used to measure the functional status of elderly people at rural areas in Bangladesh. The internal consistency and reliability of the SF-36 was yielded at Cronbach's alpha value of 0.80. Higher score indicates more favorable functional status (Mc Horney et al., 1994; Ware et al., 1993). The internal consistency and reliability of the current study was yielded at the Cronbach's alpha value of 0.92.

Data Collection: A descriptive cross-sectional design was employed to explore the functional status of the elderly people. Prior to data collection, the proposal was approved by the Institutional Review Board (IRB) at National Institute of Advanced Nursing Education and Research (NIANER) and BSMMU. IRB clearance number was Exp. NIA-S-2018-45 on 15th November 2018. The elderly people who were interested to participate in the study were participated in the study voluntarily. Permission was taken from the local leader of rural areas. The researcher had to make contact with the participants, explained the objectives of the study, invited them to participate in the study and ask for their voluntary participation. Then researcher took a written consent form from each participant. Their participation was completely voluntary and anonymity was guaranteed. The data was collected from the participants by face-to-face interview and data collection period was from December 2018 to January 2019. The elderly people could be withdrawn their participation at any time if they wish to, with no risk to their health, personal career, or their job in the community. All necessary information collected from the subjects was kept confidential and had been recorded as a document for 3 years after completion of the study.

Data Analysis: Data were entered into SPSS program 21.0 version. Both the descriptive and inferential statistics was used for data analysis. Descriptive statistics such as frequencies, percentages, mean, and standard deviation was used to describe the sample characteristics and Inferential Statistics such as t-test, one way of ANOVA and correlation statistics was used to examine the relationship between functional status and socio-demographic characteristics of the respondents.

III. Results

1. Socio-demographic Characteristics and Health Behaviors of the Participants:
1.1: Socio-demographic Characteristics of the Participants:

Table 1 shows the distribution of socio-demographic characteristics of the participants. A total of 85 elderly people were participated in the study. The mean age of the participants was 70.27 (SD = 10.38) years which was ranged from 60 to 115 years. The majority (71.8%) of the elderly peoples were in the age group of 60-70. Most of participants (72. 94%) were male and most of them (98.82%) were Muslim. Considering education, nearly two third (60%) of the participants were illiterate. According to occupation, the retired person was 12.94%, daily labors were 12.94% and the others were 65.89%. The mean income of participants was 8988.24 (SD=6238.31) BDT. Most of the participants (91.77%) were married and among them above half of the participants (56.5%) were living in nuclear family.

Table 1.1:

Variable	Category	Frequency (n)	Frequency (%)	M±SD
Age	60-70	61	71.8	70.27±10.38
	> 70	24	28.2	
Gender	Male	62	72.94	
	Female	23	27.06	
Religion	Muslim	83	98.82	
	Hindus	2	1.18	
Education	Illiterate	51	60.00	
	Primary	27	31.77	
	Higher secondary	7	8.23	
Occupation	Retired	11	12.94	

	Business	7	8.23	
	Daily Labour	11	12.94	
	Others	56	65.89	
Monthly income				8988.24±6238.31
Marital Status	Married	78	91.77	
	Widow	7	8.23	
Family Type	Nuclear Family	48	56.48	
	Joint Family	37	43.52	

1.2: Health Behaviors of the Participants:

Health behavior of the participants was measured using 9 items yes/no health behavior related questionnaire. Table 2 shows the distribution of frequency and percentage of health behaviors of the participants. Findings reveal that among the 85 participants, half of the participants (50.59%) were smoker. A few participants (9.41%) did exercise and half of the participants (55.29%) took regular diet. Very few participants (2.35%) had a history of communicable diseases and most of them (77.65%) had a history of non-communicable. However a few participants (11.77%) had a past history of communicable disease and (15.30%) had non-communicable disease. Least participants (10.58%) had history of surgery of the participants.

Table 1.2:

Characteristics	Yes	
	n	%
Smoking	43	50.59
Exercise	8	9.41
Regularity diet intake	47	55.29
Present history of communicable disease	2	2.35
Present history of non-communicable disease	66	77.65
Past history of communicable disease	10	11.77
Past history non-communicable disease	13	15.30
Past history of surgical condition	9	10.58

2: Functional Status of the Participants:

The functional status of the participants presented in table 3 According to finding mean functional status was 2.56 (SD =.91) out of 5 points which indicates moderate level of functional status. The mean score for the subscale of functional status including general health was 2.09 (SD=1.24), limitation of activities 2.78 (SD=1.44), physical health 2.68 (SD=1.45), social activities 3.14 (SD=1.39), bodily pain 2.60 (SD=2.60) and Mental Health was calculated as 3.27 (SD=.67). Among the participants functional status subscale, energy and emotion 3.27 (SD=.67) was the highest mean score whereas general health status 2.09 (1.24) was low. Among participants 50(58.8%) were poor functional status and 19(22.4%) good functional status. Most of the time, Vigorous activities 56(65.9) and Climbing several flights of stairs and Bending, kneeling, or stooping 40(47.1) were limited in functional status. Only 36(42.4%) were difficulty performing the work but 12(14.1%) were mostly not difficulty performing the work. 25(26.6%) emotional problems were interfered and only 21(24.7%) were not interfered with normal social activities. Among participants, 5(5.9) were never bodily pain and 34 (40.0%) were very severe pain. 15(17.6) were never pain interfered with normal work. Some of the time, 26(30.6%) were very nervous person and 35(41.2%) felt calm and peaceful and 19(22.4) never felt so down. Most of the time, 49(57.6) were very unhappy person and only 22(25.9) were happy person. A little bit of the time, 42(49.4) were felt downhearted and blue and 42(49.4%) felt tired but 5(5.9%) never felt tired.

Table 2:

Variables	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	M(SD)
General health						2.09(1.24)
In general, my health is:	38(44.7)	20(23.5)	16(18.8)	5(5.9)	6(7.1)	2.07(.23)
I am as healthy as anybody I know	44(51.8)	10(11.8)	19(22.4)	6(7.1)	6(7.1)	1.87(1.20)
I expect my health to get worse	50(58.8)	14(16.5)	13(15.3)	3(3.5)	5(5.9)	1.81(1.18)
Limitations of Activities:						2.78(1.44)
Vigorous activities	56(65.9)	10(11.8)	8(9.4)	10(11.8)	11(12.9)	1.82(1.38)
Moderate activities	39(45.9)	16(18.8)	11(12.9)	2(2.4)	17(20.0)	2.32(1.55)
Lifting or carrying groceries	31(36.5)	14(16.5)	15(17.6)	5 (5.9)	20(23.5)	2.64(1.58)

Climbing several flights of stairs	40(47.1)	11(12.9)	12(14.1)	5(5.9)	17(20.0)	2.39(1.589)
Bending, kneeling, or stopping	40(47.1)	7(8.2)	16(18.8)	3(3.5)	19(22.4)	2.46(1.62)
Walking more than a mile	31(65.5)	10(11.8)	14(16.5)	4(4.7)	26(30.6)	2.81(1.687)
Walking several blocks	24(28.2)	10(11.8)	14(16.5)	8(9.4)	29(34.5)	3.09(1.65)
Physical Health						2.68(1.45)
Accomplished less than you would like	32(37.6)	16(18.8)	12(14.1)	4(4.75)	21(24.7)	2.60(1.61)
Limited in the kind of work	21(24.7)	2(2.4)	8(9.4)	20(23.5)	34(40.0)	2.48(1.615)
Difficulty performing the work	36(42.4)	11(12.9)	20(23.5)	6(7.1)	12(14.1)	2.38(1.44)
Social Activities:						3.14(1.39)
Emotional problems	16(18.8)	19(22.4)	17(20.0)	14(16.5)	19(22.4)	3.01(1.43)
Interfered your social activities	21(24.7)	20(23.5)	18(21.2)	13(15.3)	13(15.3)	2.98(1.50)
Pain						2.60(1.46)
Bodily pain	34(40.0)	14(16.5)	20(23.5)	12(14.1)	5(5.9)	2.45(1.47)
Pain interfere normal work	31(36.5)	18(21.2)	13(15.3)	8(9.4)	15(17.6)	2.51(1.501)
Energy and Emotion:						3.27(.67)
Nervous person	26(30.6)	25(29.4)	16(18.8)	3(3.5)	15(17.6)	2.48(1.41)
Felt so down	9(10.6)	22(25.9)	16(18.8)	13(15.3)	25(29.4)	3.27(1.401)
Felt calm and peaceful	35(41.2)	8(9.4)	10(11.8)	17(20.0)	15(17.6)	2.64(1.595)
Felt downhearted and blue	18(21.2)	6(7.1)	14(16.5)	28(32.9)	19(22.4)	2.72(1.444)
Happy person	49(57.6)	4(4.7%)	2(2.4)	8(9.4)	22(25.9)	2.41(1.78)
Feel tired	42(49.4)	18(21.2%)	16(18.8)	4(4.7)	5(5.9)	1.96(1.19)
				Total Mean of Functional Status 2.56(.91)		

3: Relationship between Socio-demographic Characteristics, Health Behaviors and Functional Status of the Participants:

3.1: Relationship between Socio-demographic Characteristics and Functional Status of the Participants:

Table 3.1 shows the relationship between socio-demographic characteristics and functional status of the participants. The bivariate analysis was done to examine the relationship between socio-demographic characteristics and functional status of the study participants. The analysis shows that age (p = .002), gender (p=.006), religion (p=.008), education (p=.000) and occupation (p= .033) were statistically significantly correlated with the level of functional status. Based on ANOVA, it shows that elderly people who had Higher Secondary education had high functional status than other education group (p=.000). It means that higher the education higher functional status.

Table 3.1:

Variable	Category	M±SD		t/r/f (P)
Age	60-70	3.69±.91		3.695 (.001)
	> 70	2.08±.71		
Gender	Male	2.73	± .90	2.843 (.006)
	Female	2.12	±.77	
Religion	Muslim	2.52	±.88	-2.719 (.008)
	Hindus	4.23	±.58	
Education	Illiterate	2.37	±.80	8.824 (.000)
	Primary	2.62	±.89	
	Higher Secondary	3.78±.85		
Occupation	Retired person	3.13	±1.34	2.98 (.036)
	Business	3.08	±.94	
	Daily labor	2.57	±.53	
	Others	2.40	±.81	
Monthly income		8982.35 ±6245.21		.172 (.150.)
Marital status	Married	2.62	±.88	1.78 (.079)
	Widow	1.98	±1.12	
Family type	Nuclear family	2.47	±.82	-1.132 (.261)
	Joint family	2.70	±1.01	

3.2: Relationship between Health Behaviors and Functional Status of the Participants:

Table 3.2 shows the relationship between health behavior and functional status of the participants. According to bivariate analysis, it shows that exercise (p=.028), regular diet intake (p=.007), and non-communicable disease (p=.001) were statistically significantly correlated with functional status. However other variables are non-significant with functional status of the elderly people. It means that elderly people those who perform regular exercise, daily diet intake and non-communicable disease have better functional status than those who do not perform exercise, diet intake or do not have non-communicable disease.

Table:3.2:

Characteristics	Categories	(M±SD)		t/r/F	(P)
Smoking	Yes	2.53	±.83)	-.340	(.735)
	No	2.60	±.99		
Exercise	Yes	3.23	±1.10)	2.237	(.028)
	No	2.49	±.86		
Regular diet intake	Yes	2.79	(1.03)	2.756	(.007)
	No	2.28	±.65		
Communicable disease	Yes	2.60(.79)		.063	(.950)
	No	2.56±.91			
Non-communicable diseases	Yes	2.39	(.81)	-3.588	(.001)
	No	3.18	±.99		
H/O Communicable disease	Yes	2.63	(.97)	.228	(.820)
	No	2.56	±.90		
Non-communicable disease	Yes	2.56	(.79)	.001	(.999)
	No	2.56±.93			
Past history of surgical condition	Yes	2.44(14.30)		-.429	(.669)
	No	2.58±.94			

The first paragraph under each heading or subheading should be flush left, and subsequent paragraphs should have a five-space indentation. A colon is inserted before an equation is presented, but there is no punctuation following the equation. All equations are numbered and referred to in the text solely by a number enclosed in a round bracket (i.e., (3) reads as "equation 3"). Ensure that any miscellaneous numbering system you use in your paper cannot be confused with a reference [4] or an equation (3) designation.

IV. Discussions

This chapter describes the significant results of the study. The results are discussed under the following heading:

Socio demographic Characteristics of the Participants:

Eighty five elderly people were participated in the study. The mean age of all participants was 70.27 years which was ranged from 60 to 115. This finding is similar with the previous studies of Uddin (2017) and Barikdar (2016) in Bangladesh and study of Sharma, Parashar and Mazta (2014) conducted in India. These studies were conducted to measure the quality of life of elderly people. According to their findings, most of the patients age was 60 and above. These findings may be due to heredity, standard of living, and healthy diet habits. Majority of the participants was male. This finding is quite similar with the previous study conducted by Khan et al., (2014) and Musaiger and D'Souza (2009). The studies found that men were generally perceived to reach elder age at a later age than women. In this study maximum of the participants were Muslim. This same result is found in the previous study conducted by Khan et al., (2014) and Bangladesh International Religious Freedom Report (2013). The studies show that In Bangladesh, there are four religions that recognized by government namely; Islam, Hinduism, Christianity and Buddhism. And Islam is the largest religion in Bangladesh and the rest are others religions. Nearly two third of the participants were illiterate. These are similar with the previous study conducted by Khan et al. (2014).

Functional Status of the of the Participants:

The present study found that most elderly people reported a moderate level of overall functional status. The finding of this study is similar with the previous study conducted by Uddin (2017) in Bangladesh and Naing, Nanthamongkolchai and Munsawaengsub (2010) in Myanmar. In Myanmar, a descriptive study was conducted to identify the level of functional status. Findings showed that majority of the patients had a moderate level of functional status. This result might be due to elderly people background, culture, age, income and educational information (Uddin, 2017). Functional status can be conceptualized as an individual's ability to manage activities related to personal self-care and self-maintenance. Functional status assessment is fundamental aspect of elderly examination. This assessment helps clinicians and policymakers to design and implement interventions that help elderly to live safely and indecently.

Functional status consists with some dimensions including general health status, limitation of activity, physical health functioning, social activities, bodily pain, and mental health that are involved to assess functional status of elderly and the distribution of functional status varied to person, place, and period. Based on present study, the elderly people hold overall poor to moderate functional status. Among the six dimensions assessed by SF-36, elderly people studied in the present survey obtained the worst score in the scales of General Health Perception, Physical Health Problem and Bodily Pain. The findings of this study are similar with the previous study of Tourani et al., (2018) and Aghamolaei, Tavafian, and Zare (2010). These studies showed that General Health Problem, Physical Health Problem, reported the lowest scores, probably due to poor healthcare services for elderly people compared with the general population and lack of adequate funds. A low functional status among the elderly could be improved by targeted programs of health promotion, prevention and delivery of high-quality services. On the other hand, in our study social activity and sound mental health reported the highest scores. Other study showed similar results. This could be attributed to the particular status of elderly people in the society of Bangladesh. Under the dimension of limitations of activities, such as vigorous activities, moderate activities, lifting or carrying groceries, climbing several flights of stairs bending, kneeling, or stooping had been affected towards elderly people activities.

Relationship between Socio-demographic Characteristics and Functional Status of Participants:

Age is an important factor that influences functional status of elderly people. In this current study, according to bivariate analysis, participants' age was highly significantly correlated with the functional status of the elderly people. The findings of this study are similar with the previous study conducted by Mahmud, Rahman and Mandal (2014) in Bangladesh. Another study also found the same result regarding age and functional status in other context in Bangladesh. This result might be due to elderly people background, culture, income and educational information.

Current study result also showed that there is a relationship between gender and functional status. Male was highly significantly correlated with functional status than female. This finding was consistent with the prior study conducted in Tanzania. Mwanyangala et al (2010) conducted a study in Tanzania to identify the factors related to functional status of elderly people. The result of this study found that men elderly reported better functional status than women elderly. Although the context, culture and background of the Tanzanian people are similar, the relationship between gender and functional status is same with the context of Bangladesh.

Religion is a factor that influences the functional status of the elderly people. In this study showed that had a significance relationship between religion and functional status of elderly people. The researcher assumes that in this study near about 100% participants was Muslim. This is huge difference did not seen any other studies in Bangladesh and others countries.

Education influences functional status of elderly people. In this study, result shows that education had a significant correlation with functional status of elderly people. Same result was found in previous study conducted in Korea. In Korean study, education was significantly correlated with the functional status of elderly people. It means that the elderly people who had higher education had better functional status (Chen & Hu. 2018 & Zin et al., 2015).

Occupation has a relationship with functional status of elderly people. In this current study, it shows that occupation has a significant correlation with functional status of elderly people. Similar result was found in the prior study in Korea. Min, Park, Lee, and Min (2015) conducted a study in Korea to identify the factors related to functional status of elderly people. The result of this study found that retired persons have better functional status in compared with the businessman, daily labor and others. The reasons for better functional status of retired person might be due to regular exercise, taking of regular healthy diet and more aware of their health condition as well as regular health checkup.

Relationship between Health Behavior and Functional Status of the Participants:

Smoking causes many morbidity and mortality (CDC, 2018). In 2017, Global adult Tobacco survey report revealed that in Bangladesh, 18% of adult were smoked and 36.2% of adult male were smoked. In the present study, in Mymensingh, 48% of adult were smoked. Present study showed that 50.59% of participants were smoked that are very congruent to Bangladeshi context.

The physiological, psychological and social changes during aging affect their dietary choices. Many older adults have inadequate energy and protein intake. Evidence showed that quality diet intake influence quality of life positively. Elderly people cannot take food regularly due to the physiological, psychological and social changes and it effect. Regular intake of diet is a major component of quality diet intake (Yannakoulia et al., 2018). Present study shows that more than half of participants take regular diet.

Exercise is important to improve the functional status of elderly people. In this study it shows that there was very highly statistical significant relationship between exercise and functional status of elderly people. Similar result was found in previous study conducted in Korea. Oh, Kim, Lee, Jung and Lee (2017) conducted a study to find out the association between exercise type and quality of life in a community-dwelling older people. They found that the exercisers were significantly higher than those of the non-exercisers for all exercise types. The result might be due to effective blood circulation, motor and sensory function as well as good range of motion of the joint. These are the good effects of exercise. This study also shows that people with higher education had higher level of functional status.

Current study showed that had a highly significance relationship between non-communicable diseases and functional status of elderly people. Non-communicable disease is a factor that influences the functional status of elderly people. Similar result found in CDC reports in non-communicable. The results showed that NCD burden is rapidly increasing due to social transition, unhealthy dietary habit & rapid urbanization.

III. Conclusion

Overall functional status of the elderly people in Bangladesh was moderate level. Participant's age, gender, religion, education and occupation, exercise, regular diet intake and non-communicable disease were statistically significantly correlated with the patient functional status. Lifestyle modification program can be conducted to promote functional status of the elderly. Exercise and walking is also important to enhance their functional status. Significant variables found in the results could be compromised through the development of health promotion program for elderly people in the rural area.

One setting, small sample size and self-administered questionnaire were the main limitations of the study. The result of the current study cannot be generalized to other settings due to its unique characteristics. It may be more generalizable if data collected from different settings of Bangladesh.

Further study needed by a large numbers of sample size for generalization of the results Experimental study or lifestyle modification program may be developed to promote functional status of the elderly people. Lived experience of elderly people can be conducted to identify the factors contributing functional status. Health awareness program may be initiated to improve the self-care ability of the elderly people.

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